

topes in their bones from exposure in Europe and that in blood from exposures in Australia. In most other populations, the similarity of the many kinds of lead (isotopes) in bone and blood make distinguishing lead leached from bone impossible. An additional study using nonhuman primates with long-term exposure to lead will provide an animal model for studying lead in pregnant women and also allow study of suboptimal versus superoptimal nutrition in preventing lead transfer from the pregnant animal to the fetus during pregnancy.

- **Environmental health sciences centers.** NIEHS has funded multidisciplinary centers at research universities throughout the United States for some time. Now, through the agreement with ORMH, NIEHS is funding developmental centers based on this same model located at universities in proximity to areas of special environmental concern, allowing universities in polluted areas to take part in this competitive program. The first center has been established jointly at Tulane and Xavier Universities in New Orleans, Louisiana, to address environmental concerns associated with the petrochemical industry in Louisiana.
- **National environmental health meeting.** This agreement will also allow NIEHS to sponsor a national meeting July 28 and 29 in Washington, DC, addressing environmental health research gaps and priorities arising from the concern that those in lower socioeconomic groups and some racial groups have greater health risks resulting from living and working closer to pollution. The meeting will provide a forum for developing research strategies to study the distribution in various populations of environmental health risks, and to find ways to reduce these risks.

Electromagnetic Fields Research

NIEHS has signed an interagency agreement with the EPA contributing to the ongoing electromagnetic fields (EMF) research program to help determine whether any relationship exists between exposure to EMF and adverse human health effects.

The agreement provides \$1.8 million in EPA funds for fiscal year 1993 to support research grants funded by NIEHS. These funds will be used to support grantee researchers to 1) identify biological processes that might explain progression from EMF exposure to the development of disease, and 2) assess human exposure to EMF. The agreement calls for priority to be given to cancer as a possible health effect, but also states that other research areas to be addressed include effects on reproductive,

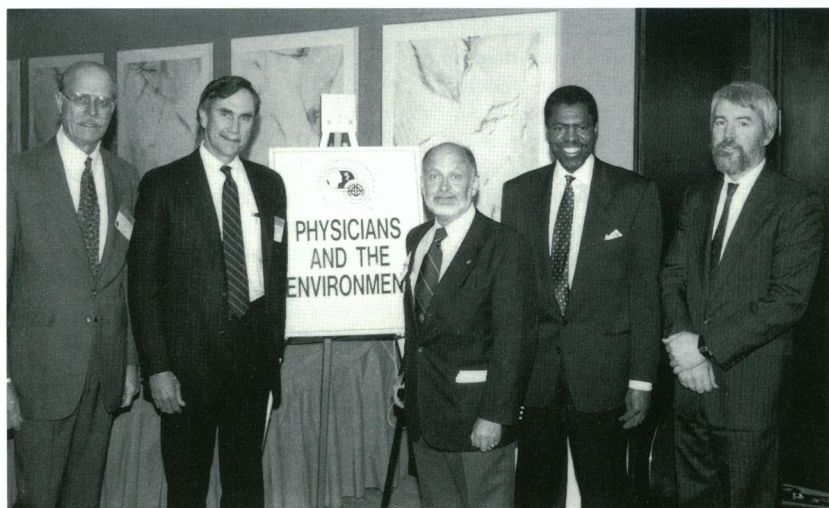
developmental, and neurological aspects of human health.

According to the agreement, research should look at possible cause-and-effect relationships involving biological processes such as gene expression, growth of transformed cells, and intracellular reactions associated with chemical signaling. Research also should focus on accurately characterizing human exposure to EMF, particularly in the home and public environments.

Although several epidemiologic studies have reported a possible association between EMF exposure and cancer, EPA's Science Advisory Board concluded last year that the currently available information is "insufficient to conclude that electric and magnetic fields are carcinogenic." The National Comprehensive Energy Policy Act of 1992 names NIEHS as the lead federal agency for coordinating research on the possible human effects of EMFs and for collecting and disseminating information to the public and policymakers.

Physicians Agree Environmental Organization Is Needed

More than 100 physicians, environmental professionals, and other leaders met in Washington, DC, in February and agreed that an umbrella organization is needed to pull together medical organizations and other interested groups to systematically inform the public about the impacts of environmental pollutants on human health. The national conference titled "Physicians and the Environment" was co-sponsored by the American Academy of Otolaryngology-Head and Neck Surgery, Inc. and the National Association of Physicians for the Environment, with funding support by NIEHS.



Physicians address environmental concerns. From left to right: John Grupenhoff, National Association of Physicians for the Environment; Charles Cummings and Jerome Godstein, American Academy of Otolaryngology-Head and Neck Surgery; Kenneth Olden, NIEHS; Philip Landrigan, Mount Sinai Medical Center.

Among the speakers were 23 medical organization leaders, several leaders of major environmental organizations, the executive director of the American Association of Retired Persons, a high-ranking official from the Smithsonian Institution, and others. Senator Tom Harkin (D-Iowa), chair of the Senate Subcommittee on Labor-HHS-Education Appropriations, expressed strong support for the concept of a National Association of Physicians for the Environment and noted that he was pleased to learn of an international organization with similar objectives, the International Society of Doctors for the Environment.

It was agreed that the major issues to be dealt with include air pollution, ozone layer depletion, biological diversity, water pollution, environmental tobacco smoke, lead, hospital and medical office waste, pesticides and herbicides, electromagnetic fields, and hazardous waste. Participants discussed the development of appropriate research strategies to improve understanding of the impact of environmental pollutants in order to assure solid scientific bases for action. The importance of medical organizations working with the National Institutes of Health, and especially NIEHS, to assure that information disseminated is solidly based on science was stressed. For further information on the National Association of Physicians for the Environment, contact John Grupenhoff, (301) 571-9791. Conference proceedings are available from Grupenhoff or from the NIEHS Office of Communications, (919) 541-2605.

Cooperation in Toxicology Strategy Sought

Kenneth Olden, NIEHS and NTP Director, continued to seek broad-based input

into planning and priority setting for NTP and NIEHS as he met with more than 60 representatives of government (federal, state, and county), industry, labor, academia, environmental organizations, local citizens groups, and Congressional aides. They met in March at the National Institutes of Health campus in Bethesda, Maryland. Olden spoke of his fundamental goal to make his organizations responsive to the needs of the American people. "In my view, programs supported by public funds should be accountable to the public," Olden said. In inviting attendees, Olden said, "It has become very clear that both the number of toxicological tests carried out by the NTP and the base of research related to the testing must be expanded. Therefore, I invite you to participate in an effort to explore the formation of national partnerships to meet future needs."

Discussion focused on three topics: how research and testing priorities are determined, what kinds of partnerships can be developed, and how to communicate research and testing results to the public. A number of participants emphasized their reliance on NTP study results. Rebecca Head, of Michigan's Washtenaw County Environmental Services Office, noted that officials in her state, "hang our hats" on NTP data as she called for studies of a broader range of health effects. Carol Henry, of the California Environmental Protection Agency, stated that there are many chemicals for which there is little or no scientific data. She suggested giving priority to high-volume chemicals that are transported in quantities and are therefore more likely to be spilled.

Roger McClellan, president of the Chemical Industry Institute of Toxicology, said, "The issue is how toxicology testing relates to toxicologic evaluation and ultimately to human risk assessment. We need to build partnerships to better this process." McClellan also noted the importance of testing problem chemicals, not just new or unknown ones.

Themes repeated throughout the meeting were that communication is the key to partnerships, to allow the input of ideas and to improve access to NTP data, and that information needs to be easier to obtain and more user friendly and accessible. Patricia Bauman, of the Bauman Foundation, suggested that an advisory committee on communication might provide NIEHS and NTP with feedback on the public's need for information.

The question of how to fund toxicology testing generated discussion and ideas. Kay Kiker, citizen activist from York, Alabama, raised the issue of using some portion of the fines levied on industry for this important research. Eula Bingham, of the University of Cincinnati, suggested a tax on heavily used chemicals, and Gilbert Omenn, of the University of Washington, proposed retroactive fines that might be levied on companies under the Toxic Substances Control Act to fund government studies. Discussion of the issue of who should pay for studies ended far from any agreement or plan. Concern was raised about potential conflict of interest in government-industry cost sharing, along with the need for NTP to remain in the position of what several termed the "honest broker." However, it was pointed out that

partnerships do not have to be based on money.

Plans are underway to follow up the March 11 meeting by convening smaller groups to offer specific advice on how to implement some of the suggestions offered by workshop participants. Olden stated that working together is the real way to succeed, and he plans to continue to explore ways to form partnerships with the many concerned segments of society.

NTP Requests Recommendations for Chemical Testing

The National Toxicology Program is soliciting recommendations for chemicals, chemical classes, and biological issues to be tested for toxicity studies. NTP coordinates U.S. Department of Health and Human Services activities in characterizing the toxicity of chemicals and is made up of toxicology research groups within NIEHS, the National Institute of Occupational Safety and Health, and FDA. NTP supports research and testing to increase the spectra of toxicologic information on selected chemicals and to develop testing assays and protocols.

Chemicals are selected for testing on the basis of data and information needs of NTP member agencies, other government agencies, and in response to public concerns regarding safety and health effects of specific chemicals or chemical classes. The NTP investigates a number of biological effects including *in vivo* metabolism and disposition, reproductive and developmental toxicity, genetic toxicity, immunotoxicity, neurotoxicity, general toxicity, and carcinogenicity. The results of the NTP studies are used by federal and state research and regulatory agencies as well as private sector organizations and are made available to the public in the form of technical reports and in the scientific literature.

There is no time limit for nominating chemicals and biological issues for examination. NTP will consider each nomination as it is received; however, available resources limit the number of chemicals tested. Send all nominations and relevant background information on the chemical or issue to B.A. Schwetz, Environmental Toxicology Program, NIEHS, PO Box 12233, Research Triangle Park, NC 27709.

Negro-Vilar to Join Wyeth-Ayerst

Andres Negro-Vilar, who for six years has been chief of the NIEHS Laboratory of Molecular and Integrative Neurosciences, has accepted a new position as vice-president, Wyeth-Ayerst Research, and Head of



Input sought. Representatives from government, industry, academia, and local citizen groups met in March to discuss priorities for NIEHS and NTP.